



Hawaii Department of Health - Safe Drinking Water Branch

Revised Total Coliform Rule - Level 2 Assessment

RTCR-Level 2

PWS ID #: _____ PWS Name: _____ City: _____

Lead Assessor, other participants in the assessment: _____

Person(s) representing the PWS: _____

Trigger Date: _____

Date of Site Visit: _____ Date Assessment completed: _____

Level 2 Trigger: ☐ *E. coli* MCL violation
☐ 2nd Level 1 trigger in 12 months Date of last Level 1 trigger: _____

List all positive samples and all repeat samples (in chronological order)	Sample Pt ID/Location	Date Collected	Total coliform <i>E. coli</i>
	1 TC _____ Chlorine: _____ mg/L		Total coli. <i>E. coli</i>
	2 TC _____ Chlorine: _____ mg/L		Total coli. <i>E. coli</i>
	3 TC _____ Chlorine: _____ mg/L		Total coli. <i>E. coli</i>
	4 TC _____ Chlorine: _____ mg/L		Total coli. <i>E. coli</i>
	5 TC _____ Chlorine: _____ mg/L		Total coli. <i>E. coli</i>
	6 TC _____ Chlorine: _____ mg/L		Total coli. <i>E. coli</i>
	7 TC _____ Chlorine: _____ mg/L		Total coli. <i>E. coli</i>
	8 TC _____ Chlorine: _____ mg/L		Total coli. <i>E. coli</i>

Check all sections completed and provide the number of individual assessments within each category.

Sections in BOLD must be completed for each assessment.

<input checked="" type="checkbox"/> 1.0 Sample site evaluation _____	<input type="checkbox"/> 8.0 Source - Surface Water Supply _____
<input checked="" type="checkbox"/> 2.0 Sampling protocol followed _____	<input type="checkbox"/> 9.0 Source - Spring _____
<input checked="" type="checkbox"/> 3.0 Operational, Environmental or Security Events _____	<input type="checkbox"/> 10.0 Source - Purchased _____
<input checked="" type="checkbox"/> 4.0 Distribution System <u>1</u>	<input checked="" type="checkbox"/> 11.0 Water Quality <u>1</u>
<input type="checkbox"/> 5.0 Storage Facilities _____	<input type="checkbox"/> 12.0 Other Issues Identified _____
<input checked="" type="checkbox"/> 6.0 Treatment Processes _____	<input checked="" type="checkbox"/> 13.0 Summary of Incident <u>1</u>
<input type="checkbox"/> 7.0 Source - Well _____	

1.0 Sample Site Evaluation Complete this form for each positive coliform sample location (routine or repeat). Sample Pt. no.: TC_____ Location: _____					
	Item	Yes	No	N/A	Issue and/or Description
1.1	What is the regular use of the sample site (handwashing, dedicated sample tap, etc.)?				
1.2	Describe the location and condition. Is the tap exposed to the rain?				
1.3	Have there been any plumbing breaks or failure? If yes, when?				
1.4	Have there been any plumbing changes or construction?				
1.5	List any identified cross-connections after the service connection or in premise plumbing.				
1.6	Were there any low pressure events in the premise plumbing?				
1.7	Were all backflow prevention devices present, operational, tested annually by a certified tester & maintained?				
1.8	Other comments on sample site?				
Photo of sample site		Notes			

2.0 Sampling protocol followed		Person who collected samples: _____			
	Item	Yes	No	N/A	Issue and/or Description
2.1	Were samples collected according to an approved RTCR sample site plan?				
2.2	Please describe the sampling procedures.				
2.3	Aerator, screen, hose or other attachment present during sampling?				
2.4	Were proper storage and transport procedures used?				
2.5	Was the chain-of-custody form properly completed?				
2.6	Other comments on sample collection procedures.				
Notes					

3.0 Operational, Environmental, or Security Events. Have any of the following occurred at relevant facilities prior to the collection of positive total coliform samples?					
	Item	Yes	No	N/A	Issue and/or Description
3.1	Was there a failure of chlorination equipment?				
3.2	Have there been events indicating potential for introducing contamination (e.g. main breaks, low pressure, loss of disinfection, high turbidity)?				
3.3	Were there any operational or maintenance activities that could have introduced total coliforms or <i>E. coli</i> , such as pipeline replacement?				
3.4	Has there been any vandalism and/or unauthorized access to facilities?				
3.5	Have there been a fire fighting event, flushing operation, sheared hydrant, etc?				
3.6	Have there been any other events that could have caused coliform positives?				
3.7	Has there recently been heavy rainfall/flooding?				
3.8	Any inactive sources or new sources recently introduced into the system?				
Notes					

4.0 Distribution System					
	Item	Yes	No	N/A	Issue and/or Description
4.1	Are there any unprotected cross-connections to nonpotable water (for example: fire flow system)?				
4.2	Any issues found in any booster pump stations?				
4.3	Air relief valves: Is the valve vault subject to flooding? Is the vent not pointing downwards or not screened?				
4.4	Are backflow prevention devices at high risk sites present, operational, and maintained & inspected within the last 12 months by a certified tester?				
4.5	Have there been any water main repairs or additions? If yes, when and what was the repair or addition?				
4.6	Have there been any water main breaks? If yes, when?				
4.7	Was there any scheduled flushing of the distribution system? If yes, when?				
4.8	Is there any evidence of intentional contamination in the distribution system?				
4.9	Other comments on the distribution system.				
Notes					

5.0 Storage Facilities <i>Complete one form for each storage facility.</i>					
Storage Tank Name: _____					
	Item	Yes	No	N/A	Issue and/or Description
5.1	Is unauthorized access possible?				
5.2	Is the overflow outlet outfitted with a flapper valve, duckbill check valve or insect screen?				
5.3	Is there improper sealing of the access hatch or other openings, or improper screening of the level indicator opening (for example, it does not prevent entrance of rainwater & insects).				
5.4	Could the physical condition of the tank be a source of contamination (including but not limited to: biofilm, oil sheen or particulates on the water surface, or insects or geckoes visible in the tank)?				
5.5	Is the vent not turned down or properly screened, or does the termination point not have an approved air gap?				
5.6	Is the overflow line outlet submerged?				
5.7	Has recent maintenance work been done on the tank?				
5.8	Were there any observed leaks?				
5.9	Are there separate inlet & outlet lines?				
5.10	What is the measured chlorine residual (total/free) of the water exiting the tank today?				
5.11	Was there observed physical deterioration of the tank?				
5.12	Is there any evidence of intentional contamination at the storage tank?				
5.13	PRESSURE TANK (if applicable) - Is the pressure tank maintaining an appropriate minimum pressure?				
5.14	List other comments on the storage tank.				
Notes					

6.0 Treatment Process <i>Complete one form for each treatment process.</i>				
Treatment process description: _____				
	Item	Yes	No	N/A
6.1	Have there been any interruptions of treatment (lapses in disinfection, chemical feed/power loss)? If yes, which process and for how long?			
6.2	How frequently is chlorine residual measured?			
6.3	Is the treatment device operational and maintained?			
6.4	Has there been any recent installation or repair of treatment equipment?			
6.5	Were there any recent changes in the treatment process? If yes, when, and what was the change?			
6.6	What is the free chlorine residual measured immediately downstream from the point of application today?			
6.7	SURFACE WATER-Was there a failure to meet the minimum CT requirements?			
6.8	SURFACE WATER-Did a review of filter turbidity profiles reveal any anomalies?			
6.9	SURFACE WATER-Were the flow rates above the rated capacity?			
6.10	List other comments on the treatment/disinfection system.			
Notes				

7.0 Source - Well <i>Complete one form for each well</i>					
Well name: _____					
	Item	Yes	No	N/A	Issue and/or Description
7.1	Is unauthorized access possible?				
7.2	Is the sanitary seal intact (e.g. are there openings through the pump baseplate)?				
7.3	Are the vents not facing downward or not screened?				
7.4	Do the vent and pump-to-waste terminate in an approved air gap? Is there a flapper valve or duckbill check on the pump-to-waste outlet?				
7.5	Are there any unprotected cross-connections at the wellhead (including hose bibbs without vacuum breakers)?				
7.6	Is there any evidence of standing water at the wellhead?				
7.7	Have there been any sewer spills, source water spills, or other disturbances?				
Notes					

8.0 Source - Surface Water Supply		<i>Complete one form for each source</i>			
	Item	Yes	No	N/A	Issue and/or Description
8.1	Is unauthorized access possible?				
8.2	Have there been any sewer spills, source water spills, or other disturbances?				
8.3	Have there been any algal blooms?				
8.4	Describe any changes to the surface water (e.g higher color, turbidity, organics, etc.)				
8.5	Has a change in surface water sources occurred?				
8.6	List other comments on the surface water source.				
Notes					

9.0 Source - Spring <i>Complete one form for each spring source</i>					
Spring source: _____					
	Item	Yes	No	N/A	Issue and/or Description
9.1	Is unauthorized access possible?				
9.2	What is the condition of the spring source? Is there any indication of surface water influence?				
9.3	What is the condition of the spring box?				
9.4	List other comments on the spring source.				
Notes					

10.0 Source - Purchased <i>Complete one form for each source</i>					
	Item	Yes	No	N/A	Issue and/or Description
10.1	Is unauthorized access possible?				
10.2	Have you discussed whether the wholesale supplier had any issues with their water system?				
10.3	What is the condition of the interconnection?				
10.4	List other comments on the purchased source or interconnection.				
Notes					

11.0 Water Quality Review:

Additional water quality data was reviewed or collected as part of this assessment and an assessment for the Ground Water Rule. The data is attached.

<input type="checkbox"/>	Coliform bacteria	<input type="checkbox"/>	Heterotrophic Plate count
<input type="checkbox"/>	Chlorine residual	<input type="checkbox"/>	Other
<input type="checkbox"/>	Turbidity	<input type="checkbox"/>	Other
<input type="checkbox"/>	pH		

Discuss any issues identified

12.0 Additional Comments or Issues Identified: Complete if necessary**13.0 Summary of Incident related to this Level 2 trigger:**

Include the date that a clean round of samples was ultimately collected (if collected prior to assessment submittal).

Cause of Coliform Positive Samples: Based on the results of your investigation & any other available information, what do you believe to be the cause(s) of the total coliform and E. coli positive samples? (Do not leave blank.)

☐ No sanitary defects were identified during the course of this assessment.

Sanitary Defects and Corrective Actions

-List all sanitary defects and corrective actions performed prior to submitting this assessment.

-List all sanitary defects and Planned corrective actions with proposed completion dates.

	Sanitary Defect	Corrective Action	Date Completed	Planned Completion Date
1				
2				
3				
4				
5				

Note that once this schedule has been approved by the Hawaii Department of Health, failure to meet this schedule subjects the PWS to a Treatment Technique violation, which would require public notification.

Certification

Print Name:		Signature:	
Title:		Date:	
Email:		Phone No.:	

PWS Owner or PWS Responsible party must also complete the following certification if this assessment includes a corrective action schedule.

Print Name:		Signature:	
Title:		Date:	
Email:		Phone No.:	

Hawaii Department of Health, Safe Drinking Water Branch Review

Yes No

Has assessment been successfully completed?

Likely reason for bacterial occurrence has been found.

PWS has corrected the problems.

Assessment is deemed		Acceptable		Deficient	
Corrective Action Plan		Approved		Denied	
				Approved with changes (attached)	

Name of DOH SDWB Reviewer:

Date:

Comments: